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COMPOSITION FOR CLEANING JEWELRY.

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To all whom it may concern:

Be it known that I, JOSEPH G. HEHMAN, a citizen of the United States, residing at Fort Thomas, in the county of Campbell and State of Kentucky, have invented a certain new and useful Composition for Cleaning Jewelry, of which the following is a specification.

My invention relates to a novel process and composition of matter which is particularly adapted for cleaning jewelry and which is also adapted for cleaning other articles, such as clothing and also for removing paint, varnish, gum, dirt or foreign matter, grease and the like from surfaces.

Heretofore it has been customary in cleaning newly manufactured jewelry to boil the same in a weak solution of ammonia for a period of time (approximately fifteen minutes) depending upon the substance and quantity of substance desired removed from the jewelry, after which it is scrubbed with soap and water, then dipped in alcohol, and then deposited in hot sawdust to dry. The period of time required for cleaning jewelry may depend upon the quantity of rouge and tripoli used in the manufacturing process, also sometimes upon the quantity of shellac deposited upon the jewelry in the operation of cementing a stone or other ornament in its setting. Aside from the disadvantage of requiring a considerable period of time to clean jewelry by the old process, the use of ammonia is objectionable because of chemical fumes which impregnate the air of the work-room, thereby producing an impure atmosphere and otherwise affecting the health of the workers. Moreover the strength of the ammonia solution and its adaptability as a cleaner is considerably diminished after one use in the present process of boiling the ammonia solution containing the article to be cleaned, and it has been found unsatisfactory to use the same ammonia for more than one cleaning operation. Scrubbing the article with soap and water as a part of the final cleaning process tends to deposit a thin coating of grease like material over the article thereby dulling the light refractive quality of a stone or other ornament which may be set into the article of jewelry.

The objects of my invention are to provide a cleaning composition of matter adapted to thoroughly clean jewelry in a considerably shorter period of time than is required by the usual cleaning process; to provide a cleaning composition of matter adapted for continuous use until entirely consumed; to provide a composition of matter adapted to eliminate the chemical fumes in the room in which jewelry is cleaned; to lessen the cost of cleaning jewelry by reducing the expense required in the preparation of chemicals and by shortening the period of time required in the cleaning process by workmen; and to provide a cleaning composition of matter adapted to be used as a substitute for ammonia and soap and water.

My invention consists in the process and in the composition of matter as herein set forth and claimed.

The composition of matter consists in the following imgredients:

Tri-sodium (Na_3PO_4) is mixed with powdered soda ash (Na_2CO_3) in the proportion of 8 parts tri-sodium and 1 part soda ash. The tri-sodium phosphate and soda ash which forms a crystal powder is preferably sifted through a 30 mesh screen for the purpose of removing foreign substances, such as wood, dirt and other foreign matter and retaining only the pure tri-sodium phosphate and soda ash, whereby more satisfactory results in cleaning are attained. The mixture thus formed is then dissolved in water in varied proportions and depending upon the article to be cleaned, as for instance, for cleaning jewelry, one tablespoonful of my cleaning composition may be dissolved in one quart to one gallon of water.

My process consists in mixing a quantity of tri-sodium phosphate (Na_3PO_4) with powdered soda ash (Na_2CO_3) preferably in the proportion of 8 parts of tri-sodium to 1 part powdered soda ash, then dissolving the mixture in water preferably in the proportion of one tablespoonful of said mixture in every one quart to one gallon of water, then boiling the solution to heat it and thereby assist in dislodging the foreign substance upon the jewelry, then immersing the jewelry to be cleaned in the hot solution for a period of about two minutes, then removing the jewelry and brushing it with a brush saturated in the solution, then rinsing

in clear water and then placing it in sawdust to dry. Successive pieces of jewelry may be cleaned in the same solution until the solution is entirely consumed.

I have invented a cleaning composition of matter exceedingly simple to prepare and efficient in its use. By the use of my invention chemical fumes are entirely eliminated and considerable time is saved as it is only necessary to boil the article in my preparation approximately two minutes, then rinse the article in clear water and then dry, after which the cleaning operation is completed. Furthermore, by the use of my composition of matter the injurious result of the workers placing their hands in the cleaning composition is entirely eliminated as my cleaning compound is not injurious to the skin.

When my invention is desired to be used for the purpose of cleaning paint or other materials the mixture is dissolved in water in varied proportions, but one tablespoon to 5 gallons of water may produce satisfactry results.

What I claim as new and desire to secure by Letters Patent is:

A composition of matter for cleaning jewelry consisting of a mixture of about 1 part of soda ash and about 8 parts of tri-sodium phosphate, said mixture being dissolved in water in the proportion of one tablespoonful to one quart of water.

JOSEPH G. HEHMAN.